

APPENDIX P

Air Quality Analysis

**DRAFT GENERAL CONFORMITY DETERMINATION
FOR THE BARSTOW CASINO-HOTEL COMPLEX PROJECT**

TABLE OF CONTENTS

BARSTOW CASINO-HOTEL COMPLEX DRAFT GENERAL CONFORMITY DETERMINATION

1.0 INTRODUCTION.....	1
2.0 GENERAL CONFORMITY – REGULATORY BACKGROUND.....	1
3.0 APPLICABILITY OF PROPOSED PROJECT.....	3
4.0 GENERAL CONFORMITY DETERMINATION.....	4
5.0 CONCLUSION	6

LIST OF TABLES

Table 1: Unmitigated Operational Emissions of Significant Criteria Pollutants.....	4
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ATTACHMENT

Attachment 1: Alternatives A and B URBEMIS Output Files

1.0 INTRODUCTION

This Draft General Conformity Determination has been prepared for Alternatives A and B analyzed within the Environmental Impact Statement (EIS) prepared by the Bureau of Indian Affairs for the Los Coyotes Band of Cahuilla and Cupeño Indians (Tribe) 23.1-acre Fee-to-Trust and Casino Hotel Project in the City Barstow, California.

Alternatives A and Alternative B are planned for Barstow site, located near State Route 15 approximately 130 miles east of Bakersfield, California and 115 miles north of Los Angeles, California. Alternatives A and B each consist of the development of a casino-hotel resort within the project site, which would total approximately 377,280 or 261,400 square feet in area, respectively. The casino-hotel resort developed under either alternative would include restaurants, hotel rooms, entertainment venues, banquet/meeting space, as well as a pool and spa.

General conformity thresholds would apply to Alternatives A and B because they are located in the Mohave Desert Air Basin (MDAB), which has been designated by the EPA as nonattainment for O₃ and PM₁₀. The MDAB is within the jurisdictional boundaries of the Mojave Desert Air Quality Management District (MDAQMD).

2.0 GENERAL CONFORMITY – REGULATORY BACKGROUND

The United States Environmental Protection Agency (USEPA) promulgated the General Conformity Rule on November 30, 1993 to implement the conformity provision of Title I, Section 176 (c)(1) of the Federal Clean Air Act (CAA), which requires that the Federal government not engage, support, or provide financial assistance for licensing or permitting, or approving any activity not conforming to an approved CAA implementation plan. The USEPA issued a final revised General Conformity Rule on April 5, 2010. Changes to the General Conformity Rule that may be applicable to the Proposed Project are as follows:

- Allow states and tribes to develop their own “presumed to conform” list for actions covered by the state’s SIP (40 CFR 51.851).
- Provides for the use of early emissions reduction credits (40 CFR 93.165).
- With certain limits, allows emissions from one precursor of a criteria pollutant to be offset by the reduction in the emissions or another precursor of that pollutant (40 CFR 93.164).
- Eliminates the requirement that a federal agency submit a conformity determination for regionally significant actions where the direct and indirect emission of any pollutant represents ten percent or more of the area’s emissions inventory for that pollutant (40 CFR 93.153).
- Provides alternative methods to demonstrate conformity for time periods beyond those covered by the State Implementation Plan (SIP) (40 CFR 93.162).

- Allows federal agencies to obtain emissions offsets for General Conformity requirements from a nearby nonattainment or maintenance area of equal or higher classification, provided that the emissions from the nearby area contribute to the violations of the National Ambient Air Quality Standards (NAAQS) in the area where the federal action is located (40 CFR 93.158 (a)(2) and (a)(5)(iii)).

CAA conformity is an issue that may be addressed prior, during, or after the National Environmental Policy Act (NEPA) process.

General Conformity Process

The conformity process involves two phases. The first phase is the conformity review process, which evaluates whether the conformity regulations would apply to the federal action (i.e. whether a determination is warranted). The second phase is the conformity determination process, which demonstrates how a federal action conforms to the applicable SIP.

Conformity Review

The purpose of a conformity review is to evaluate whether the conformity determination requirements would apply to a federal action under 40 CFR 93.153. There are four steps in the review process, of which the first three can be performed in any order. The four steps are identified below:

- Determine whether the proposed action causes emissions of criteria air pollutants (CAPs).
- Determine whether the emissions of a criteria pollutant or its precursor (i.e. nitrogen oxides [NO_x] and reactive organic gases [ROG] for ozone [O₃]) would occur in a non-attainment or maintenance area for that CAP.
- Determine whether the federal action is exempt from the conformity requirement as per 40 CFR 93.153 (c)(2)-(e).
- Estimate the total emissions of the pollutants of concern from the proposed action and compare the estimates to the *de minimus* threshold of 40 CFR 93.153 (b)(1) and (2) and to the non-attainment or maintenance area's emissions inventory for each CAP.

If the proposed project and/or alternatives do not emit pollutants or are exempt under 40 CFR 93.153 (c)(2)-(e), or if the affected air basin is in attainment for all criteria pollutants, no further action is necessary. Otherwise, the proposed project's estimated emissions must be compared to the *de minimus* thresholds set forth in 40 CFR 93.153 (b)(1) and (2). If the emissions are greater than or equal to the *de minimus* threshold, a conformity determination must be performed.

Conformity Determination

The purpose of the conformity determination, if needed, is to show if the Proposed Project conforms to the SIP. Conformity can be shown for NO_x, ROG (Ozone precursors) and particulate matter less than 10 microns in diameter (PM₁₀) by one of following four options:

- The applicable SIP specifically includes an allowance for emissions of the Proposed Project, 40 CFR 93.158 (a)(1);
- Offset emission credits are purchased for the total direct and indirect emissions, which fully offsets emissions within the same non-attainment or maintenance area so that there is no net increase in emissions, 40 CFR 93.158 (a)(2).
- Emissions from the Proposed Project coupled with the current emissions in the non-attainment area would not exceed the emissions budget in the SIP, 40 CFR 93.158 (a)(5)(i)(A).
- The Proposed Project can request that the SIP be changed by the State Governor or the State Governor's designee to include the emissions budget of the Federal action 40 CFR 93.158 (a)(5)(i)(B).

Even if a project is shown to conform to the SIP by the above method, the project may not be determined to conform to the applicable SIP unless the total direct and indirect emissions for the action are in compliance or consistent with all relevant requirements and milestones contained in the applicable SIP (40 CFR 93.158 (c)). Compliance may include but is not limited to:

- The use of baseline emissions that reflect the historical activity levels that occurred in the geographic area;
- Reasonable further progress schedules;
- Assumptions specified in the attainment or maintenance demonstration, prohibitions, numerical emission limits, and
- Work practice requirements.

3.0 CONFORMITY REVIEW/APPLICABILITY OF PROPOSED PROJECT

Emissions

Emissions resulting from the alternatives are analyzed in two distinct phases, construction and operational. Construction emissions are intermittent and temporary in nature and do not overlap with the operational phase. Criteria pollutants will be produced during both phases. Pollutants of concern during construction are ozone (the largest sources of which are NO_x and ROG emissions), and PM₁₀. NO_x and ROG are produced during combustion of diesel and gasoline fuels in heavy equipment and emitted by employee vehicles. The bulk of PM₁₀ emissions are from fugitive dust, which is produced during grading activities. Operational emissions consist of area and vehicle emissions. Pollutants of concern from vehicle emissions are NO_x and ROG. The EIS gives a detailed account of emissions from both construction and operations.

Attainment/Non-Attainment Area

The Proposed Project would be constructed and operated within the boundaries of the MDAB. The MDAB is currently designated severe-17 non-attainment for 8-hour ozone and moderate for PM₁₀ under the NAAQS.

Exemption

The Federal action that is described in **Section 1.0** would result in ozone precursor (NO_x and ROG) emissions greater than de minimus thresholds, does not have emissions that are associated with a conforming program, cannot be analyzed under certain other environmental regulation, and is not in response to an emergency or natural disaster. The Proposed Project, therefore, is not exempt from a conformity determination under 40 CFR 93.153 (c)(2)-(e).

De minimus Thresholds

Construction-related emissions from Alternatives A and B do not exceed the de minimus levels of 25 tons per year (tpy) of ROG or NO_x (refer to **Attachment 1**) or 100 tpy for PM₁₀. Operational emissions were estimated using the USEPA and California Air Resource Board (CARB) approved land use based Urban Emissions (URBEMIS) air model. As shown in **Tables 1** and **2**, Alternative A and B operational emissions for NO_x and Alternative A operational emissions for ROG exceeded the 25 tpy threshold establish under 40 CFR 93.153 (b)(1), and therefore a conformity determination is required for ROG and NO_x. Operational emissions of PM₁₀ do not exceed *de minimus* thresholds; therefore, a conformity determination is not warranted for this criteria pollutant. The URBEMIS output files are provided in **Attachment 1**.

Table 1

Alternative A – Pollutants of Special Concern Unmitigated Operational Emissions

Source	ROG	NO _x	PM ₁₀
	tons per year (tpy)		
Area	0.45	0.53	0.00
Mobile	26.77	42.45	60.47
Total	27.22	42.98	60.47
<i>Applicable Conformity Thresholds</i>	25	25	100
Exceedance of Threshold	Yes	Yes	No

Source: AES, 2010.

Table 2

Alternative B – Pollutants of Special Concern Unmitigated Operational Emissions

Source	ROG	NO _x	PM ₁₀
	tons per year (tpy)		
Area	0.34	0.37	0.00
Mobile	19.74	31.41	44.75
Total	20.08	31.78	44.75
<i>Applicable Conformity Thresholds</i>	25	25	100
Exceedance of Threshold	No	Yes	No
Source: AES, 2010.			

4.0 GENERAL CONFORMITY DETERMINATION

Ozone Determination

Ozone is not emitted directly into the air, but is formed by a photochemical reaction in the atmosphere. Ozone is the product of a series of chemical reactions involving sunlight, ROG and NO_x. In accordance with 40 CFR 51.852 ROG and NO_x are defined as ozone precursors and therefore, are the pollutants which are analyzed below.

Analysis

Air modeling was performed for the EIS and the general conformity determination. The results of this analysis can be found in **Sections 3.3, 4.3, and 5.2 of the EIS, and Appendix L of the Draft EIS**. As discussed above, a general conformity determination is required for NO_x and ROG emissions resulting from Alternative A, and NO_x emissions resulting from Alternative B. The conformity determination process is described in **Section 2.0** of this report.

In 2004, the USEPA designated the MDAB as moderate nonattainment for the federal 8-hour ozone standard, and in June, 2008 the MDAB was redesignated severe-17 nonattainment. USEPA has allowed MDAQMD until 2021 to achieve a designation and classification of transitional attainment for the 8-hour ozone standard.

The 2004 8-hour ozone plan would not enable MDAB to achieve attainment by June 2010; therefore, in June, 2008 the MDAQMD board approved an amendment to the plan extending the attainment date from June 2010 to June 2021. Due to the reclassification of the MDAB to severe-17 nonattainment, the applicable conformity thresholds for NO_x and ROG were lowered from 100 tons per year of ozone precursors (NO_x and ROG) to 25 tons per year. Therefore, a conformity determination is required for Alternatives A and B because estimated emissions would exceed the current conformity thresholds of 25 tpy of ROG and NO_x.

Offsets

Conformity can be achieved by fully offsetting ROG and NO_x operational emissions from Alternatives A and B through the acquisition of emission credits, which must be real, surplus, permanent, quantifiable, enforceable, and obtained and used in accordance with the federally approved SIP, or an equally enforceable measure.

Emission Budget

The Proposed Project coupled with the most recent MDAB emissions inventory (2008) exceeds the applicable ozone SIPs emission budget.

Addendum to SIP

The Proposed Project does not anticipate that the Governor of California or State Governor's designee would approve an addendum to the present applicable SIP, which would include the Proposed Project's estimated emissions.

Conformity will be achieved through the purchase of offset credits as follows:

- The Tribe shall agree to purchase ERC in the amount of 43 tons of NO_x and 28 tons of ROG if Alternative A is determined to be the Preferred Project.
- The Tribe shall agree to purchase ERC in the amount of 32 tons of NO_x if Alternative B is determined to be the Preferred Project.
- ERCs will be purchased within the MDAQMD in accordance with 40 CFR 93.158 (a)(2) prior to operation of the project.

It should be noted that the ERCs must be real, surplus, permanent, quantifiable, enforceable, and obtained and used in accordance with the federally approved SIP for the MDAB. The Tribe will provide the USEPA and other agencies with documentation necessary to support the emissions reductions through offset purchase, such as certification of ERC purchase or a binding agreement requiring ERC purchase prior to operation.

5.0 CONCLUSION

This Draft Conformity Determination will be submitted to the USEPA, CARB, and MDAQMD per 40 CFR 93.155 (a). After the 30-day comment period for this Draft Conformity Determination, the BIA will make a Final Conformity Determination per 40 CFR 93.150 (b), prior to the federal action being taken.

In compliance with the mitigation measures detailed in the EIS and future ROD, the Tribe commits to purchase ERCs sufficient to offset the operational effects of the proposed project in accordance with the

federally approved SIP for the MDAQMD. Because the anticipated air quality effects are associated with operation of the casino-hotel complex and not with construction of the facility, real, surplus, permanent, quantifiable, and enforceable ERCs will be purchased prior to the opening day of the casino-hotel complex.

Operation of Alternative A would generate an estimated 43 tpy of NO_x and 28 tpy of ROG. Operation of Alternative B would generate an estimated 32 tpy of NO_x. To mitigate these effects, the Tribe will purchase ERCs within the MDAQMD in the above amount for the alternative chosen as the preferred alternative. Therefore, the proposed project would conform to the applicable SIP and meet general conformity requirements.

ATTACHMENT

ATTACHMENT 1

URBEMIS Air Quality Output Files

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Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Barstow\Barstow Alt A - Construction and Operation.urb924

Project Name: Barstow Alt A - Construction and Operation

Project Location: San Bernadino County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (tons/year unmitigated)	3.44	9.09	6.98	0.01	5.33	0.45	5.78	1.12	0.41	1.53	1,675.42
2012 TOTALS (tons/year mitigated)	2.56	8.56	6.98	0.01	0.42	0.24	0.66	0.09	0.22	0.31	1,675.42
Percent Reduction	25.61	5.81	0.00	0.00	92.10	47.78	88.64	91.58	47.85	79.75	0.00
2013 TOTALS (tons/year unmitigated)	1.22	1.02	1.17	0.00	0.01	0.07	0.08	0.00	0.07	0.07	201.19
2013 TOTALS (tons/year mitigated)	0.47	0.90	1.17	0.00	0.01	0.02	0.02	0.00	0.01	0.02	201.19
Percent Reduction	61.55	11.57	0.00	0.00	0.00	79.35	74.08	0.00	79.52	77.40	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.45	0.53	1.29	0.00	0.00	0.00	628.63

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	26.77	42.45	281.46	0.36	60.47	12.04	35,686.39

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	27.22	42.98	282.75	0.36	60.47	12.04	36,315.02

Page: 1

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Barstow\Barstow Alt A - Construction and Operation.urb924

Project Name: Barstow Alt A - Construction and Operation

Project Location: San Bernadino County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (lbs/day unmitigated)	53.58	202.44	88.28	0.24	216.44	8.53	224.97	45.30	7.85	53.15	31,092.98
2012 TOTALS (lbs/day mitigated)	35.80	193.56	88.28	0.24	16.05	5.69	21.74	3.45	5.23	8.69	31,092.98
2013 TOTALS (lbs/day unmitigated)	55.58	46.67	58.61	0.07	0.28	3.23	3.51	0.10	2.97	3.06	10,128.14
2013 TOTALS (lbs/day mitigated)	21.47	41.41	58.61	0.07	0.28	0.73	1.00	0.10	0.66	0.76	10,128.14

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.42	2.92	7.05	0.00	0.03	0.03	3,444.57

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	129.48	219.13	1,567.85	2.06	331.35	66.04	201,538.28

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	131.90	222.05	1,574.90	2.06	331.38	66.07	204,982.85

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 1/2/2012-3/14/2012	14.76	172.74	70.50	0.23	108.63	6.99	115.62	22.79	6.43	29.22	27,873.32
Active Days: 53											
Mass Grading 01/01/2012-03/31/2012	14.76	172.74	70.50	0.23	108.63	6.99	115.62	22.79	6.43	29.22	27,873.32
Mass Grading Dust	0.00	0.00	0.00	0.00	107.80	0.00	107.80	22.51	0.00	22.51	0.00
Mass Grading Off Road Diesel	3.71	29.61	16.24	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,007.48
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Time Slice 3/15/2012-3/30/2012	18.51	<u>202.44</u>	<u>88.28</u>	<u>0.24</u>	<u>216.44</u>	<u>8.53</u>	<u>224.97</u>	<u>45.30</u>	<u>7.85</u>	<u>53.15</u>	<u>31,092.98</u>
Active Days: 12											
Fine Grading 03/15/2012-04/30/2012	3.75	29.70	17.78	0.00	107.81	1.54	109.35	22.52	1.42	23.94	3,219.66
Fine Grading Dust	0.00	0.00	0.00	0.00	107.80	0.00	107.80	22.51	0.00	22.51	0.00
Fine Grading Off Road Diesel	3.71	29.61	16.24	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Mass Grading 01/01/2012-03/31/2012	14.76	172.74	70.50	0.23	108.63	6.99	115.62	22.79	6.43	29.22	27,873.32
Mass Grading Dust	0.00	0.00	0.00	0.00	107.80	0.00	107.80	22.51	0.00	22.51	0.00
Mass Grading Off Road Diesel	3.71	29.61	16.24	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,007.48
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18

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Time Slice 4/2/2012-4/30/2012	3.75	29.70	17.78	0.00	107.81	1.54	109.35	22.52	1.42	23.94	3,219.66
Active Days: 21											
Fine Grading 03/15/2012-04/30/2012	3.75	29.70	17.78	0.00	107.81	1.54	109.35	22.52	1.42	23.94	3,219.66
Fine Grading Dust	0.00	0.00	0.00	0.00	107.80	0.00	107.80	22.51	0.00	22.51	0.00
Fine Grading Off Road Diesel	3.71	29.61	16.24	0.00	0.00	1.54	1.54	0.00	1.42	1.42	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Time Slice 5/1/2012-8/14/2012	6.39	34.08	49.88	0.06	0.24	2.27	2.51	0.09	2.08	2.17	8,134.74
Active Days: 76											
Building 05/01/2012-02/15/2013	6.39	34.08	49.88	0.06	0.24	2.27	2.51	0.09	2.08	2.17	8,134.74
Building Off Road Diesel	4.92	23.62	17.40	0.00	0.00	1.80	1.80	0.00	1.66	1.66	2,545.06
Building Vendor Trips	0.77	9.01	7.60	0.02	0.08	0.36	0.44	0.03	0.33	0.36	2,168.90
Building Worker Trips	0.70	1.45	24.87	0.04	0.16	0.10	0.27	0.06	0.09	0.15	3,420.78
Time Slice 8/15/2012-12/31/2012	<u>53.58</u>	34.12	50.55	0.06	0.25	2.27	2.52	0.09	2.09	2.17	8,228.18
Active Days: 99											
Building 05/01/2012-02/15/2013	6.39	34.08	49.88	0.06	0.24	2.27	2.51	0.09	2.08	2.17	8,134.74
Building Off Road Diesel	4.92	23.62	17.40	0.00	0.00	1.80	1.80	0.00	1.66	1.66	2,545.06
Building Vendor Trips	0.77	9.01	7.60	0.02	0.08	0.36	0.44	0.03	0.33	0.36	2,168.90
Building Worker Trips	0.70	1.45	24.87	0.04	0.16	0.10	0.27	0.06	0.09	0.15	3,420.78
Coating 08/15/2012-03/01/2013	47.19	0.04	0.68	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.44
Architectural Coating	47.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.68	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.44

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Time Slice 1/1/2013-2/15/2013	<u>55.58</u>	<u>46.67</u>	<u>58.61</u>	<u>0.07</u>	<u>0.28</u>	<u>3.23</u>	<u>3.51</u>	<u>0.10</u>	<u>2.97</u>	<u>3.06</u>	<u>10,128.14</u>
Active Days: 34											
Asphalt 01/01/2013-03/31/2013	2.56	15.18	11.12	0.01	0.03	1.18	1.21	0.01	1.09	1.10	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Building 05/01/2012-02/15/2013	5.83	31.45	46.87	0.06	0.24	2.04	2.29	0.09	1.87	1.96	8,131.78
Building Off Road Diesel	4.50	22.18	16.96	0.00	0.00	1.62	1.62	0.00	1.49	1.49	2,545.06
Building Vendor Trips	0.70	7.96	6.98	0.02	0.08	0.32	0.40	0.03	0.29	0.32	2,169.15
Building Worker Trips	0.63	1.32	22.93	0.04	0.16	0.11	0.27	0.06	0.09	0.15	3,417.57
Coating 08/15/2012-03/01/2013	47.19	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Architectural Coating	47.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Time Slice 2/18/2013-3/1/2013	49.74	15.21	11.75	0.01	0.04	1.19	1.22	0.01	1.09	1.10	1,996.36
Active Days: 10											
Asphalt 01/01/2013-03/31/2013	2.56	15.18	11.12	0.01	0.03	1.18	1.21	0.01	1.09	1.10	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Coating 08/15/2012-03/01/2013	47.19	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Architectural Coating	47.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36

5/25/2010 3:40:08 PM

Time Slice 3/4/2013-3/29/2013 Active Days: 20	2.56	15.18	11.12	0.01	0.03	1.18	1.21	0.01	1.09	1.10	1,903.00
Asphalt 01/01/2013-03/31/2013	2.56	15.18	11.12	0.01	0.03	1.18	1.21	0.01	1.09	1.10	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17

Phase Assumptions

Phase: Fine Grading 3/15/2012 - 4/30/2012 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 21.55

Maximum Daily Acreage Disturbed: 5.39

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 1/1/2012 - 3/31/2012 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 21.55

Maximum Daily Acreage Disturbed: 5.39

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 5816.74

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

Page: 7

5/25/2010 3:40:08 PM

- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/1/2013 - 3/31/2013 - Default Paving Description

Acres to be Paved: 5.39

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 5/1/2012 - 2/15/2013 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 2 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/15/2012 - 3/1/2013 - Default Architectural Coating Description

- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

5/25/2010 3:40:08 PM

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 1/2/2012-3/14/2012	14.76	168.30	70.50	0.23	8.44	5.57	14.00	1.86	5.12	6.98	27,873.32
Active Days: 53											
Mass Grading 01/01/2012-03/31/2012	14.76	168.30	70.50	0.23	8.44	5.57	14.00	1.86	5.12	6.98	27,873.32
Mass Grading Dust	0.00	0.00	0.00	0.00	7.61	0.00	7.61	1.59	0.00	1.59	0.00
Mass Grading Off Road Diesel	3.71	25.17	16.24	0.00	0.00	0.12	0.12	0.00	0.11	0.11	3,007.48
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Time Slice 3/15/2012-3/30/2012	18.51	<u>193.56</u>	<u>88.28</u>	<u>0.24</u>	<u>16.05</u>	<u>5.69</u>	<u>21.74</u>	<u>3.45</u>	<u>5.23</u>	<u>8.69</u>	<u>31,092.98</u>
Active Days: 12											
Fine Grading 03/15/2012-04/30/2012	3.75	25.26	17.78	0.00	7.62	0.12	7.74	1.59	0.11	1.70	3,219.66
Fine Grading Dust	0.00	0.00	0.00	0.00	7.61	0.00	7.61	1.59	0.00	1.59	0.00
Fine Grading Off Road Diesel	3.71	25.17	16.24	0.00	0.00	0.12	0.12	0.00	0.11	0.11	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Mass Grading 01/01/2012-03/31/2012	14.76	168.30	70.50	0.23	8.44	5.57	14.00	1.86	5.12	6.98	27,873.32
Mass Grading Dust	0.00	0.00	0.00	0.00	7.61	0.00	7.61	1.59	0.00	1.59	0.00
Mass Grading Off Road Diesel	3.71	25.17	16.24	0.00	0.00	0.12	0.12	0.00	0.11	0.11	3,007.48
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18

5/25/2010 3:40:08 PM

Time Slice 4/2/2012-4/30/2012	3.75	25.26	17.78	0.00	7.62	0.12	7.74	1.59	0.11	1.70	3,219.66
Active Days: 21											
Fine Grading 03/t5/2012-04/30/2012	3.75	25.26	17.78	0.00	7.62	0.12	7.74	1.59	0.11	1.70	3,219.66
Fine Grading Dust	0.00	0.00	0.00	0.00	7.61	0.00	7.61	1.59	0.00	1.59	0.00
Fine Grading Off Road Diesel	3.71	25.17	16.24	0.00	0.00	0.12	0.12	0.00	0.11	0.11	3,007.48
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.09	1.54	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.18
Time Slice 5/1/2012-8/14/2012	6.39	30.54	49.88	0.06	0.24	0.60	0.84	0.09	0.55	0.63	8,134.74
Active Days: 76											
Building 05/01/2012-02/15/2013	6.39	30.54	49.88	0.06	0.24	0.60	0.84	0.09	0.55	0.63	8,134.74
Building Off Road Diesel	4.92	20.08	17.40	0.00	0.00	0.14	0.14	0.00	0.12	0.12	2,545.06
Building Vendor Trips	0.77	9.01	7.60	0.02	0.08	0.36	0.44	0.03	0.33	0.36	2,168.90
Building Worker Trips	0.70	1.45	24.87	0.04	0.16	0.10	0.27	0.06	0.09	0.15	3,420.78
Time Slice 8/15/2012-12/31/2012	<u>35.80</u>	30.58	50.55	0.06	0.25	0.61	0.85	0.09	0.55	0.64	8,228.18
Active Days: 99											
Building 05/01/2012-02/15/2013	6.39	30.54	49.88	0.06	0.24	0.60	0.84	0.09	0.55	0.63	8,134.74
Building Off Road Diesel	4.92	20.08	17.40	0.00	0.00	0.14	0.14	0.00	0.12	0.12	2,545.06
Building Vendor Trips	0.77	9.01	7.60	0.02	0.08	0.36	0.44	0.03	0.33	0.36	2,168.90
Building Worker Trips	0.70	1.45	24.87	0.04	0.16	0.10	0.27	0.06	0.09	0.15	3,420.78
Coating 08/15/2012-03/01/2013	29.41	0.04	0.68	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.44
Architectural Coating	29.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.68	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.44

5/25/2010 3:40:08 PM

Time Slice 1/1/2013-2/15/2013	<u>21.47</u>	<u>41.41</u>	<u>58.61</u>	<u>0.07</u>	<u>0.28</u>	<u>0.73</u>	<u>1.00</u>	<u>0.10</u>	<u>0.66</u>	<u>0.76</u>	<u>10,128.14</u>
Active Days: 34											
Asphalt 01/01/2013-03/31/2013	2.56	13.25	11.12	0.01	0.03	0.18	0.21	0.01	0.16	0.17	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	10.91	8.03	0.00	0.00	0.08	0.08	0.00	0.08	0.08	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Building 05/01/2012-02/15/2013	5.83	28.13	46.87	0.06	0.24	0.55	0.79	0.09	0.50	0.58	8,131.78
Building Off Road Diesel	4.50	18.85	16.96	0.00	0.00	0.12	0.12	0.00	0.11	0.11	2,545.06
Building Vendor Trips	0.70	7.96	6.98	0.02	0.08	0.32	0.40	0.03	0.29	0.32	2,169.15
Building Worker Trips	0.63	1.32	22.93	0.04	0.16	0.11	0.27	0.06	0.09	0.15	3,417.57
Coating 08/15/2012-03/01/2013	13.08	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Architectural Coating	13.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Time Slice 2/18/2013-3/1/2013	15.64	13.29	11.75	0.01	0.04	0.18	0.21	0.01	0.16	0.18	1,996.36
Active Days: 10											
Asphalt 01/01/2013-03/31/2013	2.56	13.25	11.12	0.01	0.03	0.18	0.21	0.01	0.16	0.17	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	10.91	8.03	0.00	0.00	0.08	0.08	0.00	0.08	0.08	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Coating 08/15/2012-03/01/2013	13.08	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36
Architectural Coating	13.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.63	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.36

5/25/2010 3:40:08 PM

Time Slice 3/4/2013-3/29/2013 Active Days: 20	2.56	13.25	11.12	0.01	0.03	0.18	0.21	0.01	0.16	0.17	1,903.00
Asphalt 01/01/2013-03/31/2013	2.56	13.25	11.12	0.01	0.03	0.18	0.21	0.01	0.16	0.17	1,903.00
Paving Off-Gas	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	10.91	8.03	0.00	0.00	0.08	0.08	0.00	0.08	0.08	1,131.92
Paving On Road Diesel	0.18	2.21	0.82	0.00	0.01	0.08	0.10	0.00	0.08	0.08	431.91
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 3/15/2012 - 4/30/2012 - Default Fine Site Grading/Excavation Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

Page: 12

5/25/2010 3:40:09 PM

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Mass Grading 1/1/2012 - 3/31/2012 - Default Mass Site Grading/Excavation Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

Page: 13

5/25/2010 3:40:09 PM

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Paving 1/1/2013 - 3/31/2013 - Default Paving Description

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Building Construction 5/1/2012 - 2/15/2013 - Default Building Construction Description

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

5/25/2010 3:40:09 PM

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Architectural Coating 8/15/2012 - 3/1/2013 - Default Architectural Coating Description

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.21	2.86	2.41	0.00	0.01	0.01	3,436.14
Hearth - No Summer Emissions							
Landscape	0.37	0.06	4.64	0.00	0.02	0.02	8.43
Consumer Products	0.00						
Architectural Coatings	1.84						
TOTALS (lbs/day, unmitigated)	2.42	2.92	7.05	0.00	0.03	0.03	3,444.57

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
High turnover (sit-down) rest.	11.02	20.44	146.01	0.19	31.18	6.21	18,944.78
Hotel	6.24	10.12	72.21	0.10	15.50	3.09	9,409.05
Casino	112.22	188.57	1,349.63	1.77	284.67	56.74	173,184.45
TOTALS (lbs/day, unmitigated)	129.48	219.13	1,567.85	2.06	331.35	66.04	201,538.28

Operational Settings:

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2013 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
High turnover (sit-down) rest.		127.15	1000 sq ft	5.86	745.10	17,927.08
Hotel		2.06	rooms	160.00	329.60	8,909.09
Casino		39.43	1000 sq ft	229.02	9,030.26	163,628.29
					10,104.96	190,464.46

<u>Vehicle Fleet Mix</u>				
Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.4	0.4	99.4	0.2
Light Truck < 3750 lbs	10.0	2.0	94.0	4.0
Light Truck 375 t-5750 lbs	20.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	11.4	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	42.9	57.1
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	1.8	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.2	54.8	45.2	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.4	0.0	92.9	7.1

	<u>Travel Conditions</u>					
	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	30.0	30.0	30.0
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Casino				2.0	1.0	97.0

Operational Changes to Defaults

The urban/rural selection has been changed from Urban to Rural

Commercial-based commute rural trip length changed from 15.4 miles to 30 miles

Commercial-based non-work rural trip length changed from 9.6 miles to 30 miles

Commercial-based customer rural trip length changed from 12.6 miles to 30 miles

Urbemis 2007 Version 9.2.4

Summary Report for Annual Emissions (Tons/Year)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Barstow\Barstow Alt B - Construction and Operation.urb924

Project Name: Barstow Alt B - Construction and Operation

Project Location: San Bernadino County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (tons/year unmitigated)	2.65	8.44	5.87	0.01	2.52	0.42	2.94	0.53	0.38	0.91	1,487.73
2012 TOTALS (tons/year mitigated)	2.03	7.96	5.87	0.01	0.22	0.22	0.44	0.05	0.20	0.25	1,487.73
Percent Reduction	23.27	5.59	0.00	0.00	91.40	46.75	85.07	90.47	46.80	72.20	0.00
2013 TOTALS (tons/year unmitigated)	0.90	0.96	1.02	0.00	0.00	0.07	0.07	0.00	0.07	0.07	169.18
2013 TOTALS (tons/year mitigated)	0.37	0.85	1.02	0.00	0.00	0.02	0.02	0.00	0.02	0.02	169.18
Percent Reduction	58.54	11.42	0.00	0.00	0.00	74.92	71.24	0.00	75.04	73.58	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.34	0.37	1.15	0.00	0.00	0.00	429.17

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	19.74	31.41	208.23	0.26	44.75	8.91	26,408.97

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	20.08	31.78	209.38	0.26	44.75	8.91	26,838.14

Page: 1

8/2/2010 3:32:04 PM

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\equinn\Application Data\Urbemis\Version9a\Projects\Barstow\Barstow Alt B - Construction and Operation.urb924

Project Name: Barstow Alt B - Construction and Operation

Project Location: San Bernadino County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (lbs/day unmitigated)	38.96	187.07	78.22	0.23	102.04	7.60	109.64	21.41	6.99	28.40	29,487.79
2012 TOTALS (lbs/day mitigated)	26.52	180.49	78.22	0.23	7.98	5.62	13.59	1.77	5.17	6.93	29,487.79
2013 TOTALS (lbs/day unmitigated)	40.88	43.46	49.89	0.05	0.19	3.11	3.31	0.07	2.86	2.93	8,332.24
2013 TOTALS (lbs/day mitigated)	17.02	38.47	49.89	0.05	0.19	0.75	0.95	0.07	0.69	0.76	8,332.24

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.80	2.01	6.28	0.00	0.02	0.02	2,351.61

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	95.48	162.13	1,159.96	1.52	245.22	48.87	149,144.37

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	97.28	164.14	1,166.24	1.52	245.24	48.89	151,495.98

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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8/2/2010 3:32:04 PM

Time Slice 1/2/2012-3/14/2012 Active Days: 53	13.73	165.05	65.47	0.23	51.43	6.52	57.95	10.84	6.00	16.84	27,070.73
Mass Grading 01/01/2012-03/31/2012	13.73	165.05	65.47	0.23	51.43	6.52	57.95	10.84	6.00	16.84	27,070.73
Mass Grading Dust	0.00	0.00	0.00	0.00	50.60	0.00	50.60	10.57	0.00	10.57	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Time Slice 3/15/2012-3/30/2012 Active Days: 12	16.46	187.07	78.22	0.23	102.04	7.60	109.64	21.41	6.99	28.40	29,487.79
Fine Grading 03/15/2012-04/30/2012	2.73	22.02	12.75	0.00	50.61	1.08	51.69	10.57	0.99	11.56	2,417.06
Fine Grading Dust	0.00	0.00	0.00	0.00	50.60	0.00	50.60	10.57	0.00	10.57	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Mass Grading 01/01/2012-03/31/2012	13.73	165.05	65.47	0.23	51.43	6.52	57.95	10.84	6.00	16.84	27,070.73
Mass Grading Dust	0.00	0.00	0.00	0.00	50.60	0.00	50.60	10.57	0.00	10.57	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75

8/2/2010 3:32:04 PM

Time Slice 4/2/2012-4/30/2012 Active Days: 21	2.73	22.02	12.75	0.00	50.61	1.08	51.69	10.57	0.99	11.56	2,417.06
Fine Grading 03/15/2012-04/30/2012	2.73	22.02	12.75	0.00	50.61	1.08	51.69	10.57	0.99	11.56	2,417.06
Fine Grading Dust	0.00	0.00	0.00	0.00	50.60	0.00	50.60	10.57	0.00	10.57	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Time Slice 5/1/2012-8/14/2012 Active Days: 76	5.95	30.94	40.12	0.04	0.17	2.13	2.30	0.06	1.96	2.02	6,455.06
Building 05/01/2012-02/15/2013	5.95	30.94	40.12	0.04	0.17	2.13	2.30	0.06	1.96	2.02	6,455.06
Building Off Road Diesel	4.92	23.62	17.40	0.00	0.00	1.80	1.80	0.00	1.66	1.66	2,545.06
Building Vendor Trips	0.54	6.30	5.32	0.01	0.05	0.25	0.31	0.02	0.23	0.25	1,517.15
Building Worker Trips	0.49	1.01	17.40	0.03	0.11	0.07	0.19	0.04	0.06	0.10	2,392.85
Time Slice 8/15/2012-12/31/2012 Active Days: 99	<u>38.96</u>	30.97	40.59	0.04	0.17	2.13	2.31	0.06	1.96	2.02	6,520.43
Building 05/01/2012-02/15/2013	5.95	30.94	40.12	0.04	0.17	2.13	2.30	0.06	1.96	2.02	6,455.06
Building Off Road Diesel	4.92	23.62	17.40	0.00	0.00	1.80	1.80	0.00	1.66	1.66	2,545.06
Building Vendor Trips	0.54	6.30	5.32	0.01	0.05	0.25	0.31	0.02	0.23	0.25	1,517.15
Building Worker Trips	0.49	1.01	17.40	0.03	0.11	0.07	0.19	0.04	0.06	0.10	2,392.85
Coating 08/15/2012-03/01/2013	33.01	0.03	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.36
Architectural Coating	33.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.36

8/2/2010 3:32:05 PM

Time Slice 1/1/2013-2/15/2013	<u>40.88</u>	<u>43.46</u>	<u>49.89</u>	<u>0.05</u>	<u>0.19</u>	<u>3.11</u>	<u>3.31</u>	<u>0.07</u>	<u>2.86</u>	<u>2.93</u>	<u>8,332.24</u>
Active Days: 34											
Asphalt 01/01/2013-03/31/2013	2.44	14.77	11.58	0.01	0.02	1.20	1.22	0.01	1.10	1.11	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	13.60	8.91	0.00	0.00	1.15	1.15	0.00	1.05	1.05	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Building 05/01/2012-02/15/2013	5.43	28.67	37.88	0.04	0.17	1.92	2.08	0.06	1.76	1.82	6,453.00
Building Off Road Diesel	4.50	22.18	16.96	0.00	0.00	1.62	1.62	0.00	1.49	1.49	2,545.06
Building Vendor Trips	0.49	5.57	4.88	0.01	0.05	0.22	0.28	0.02	0.20	0.22	1,517.33
Building Worker Trips	0.44	0.92	16.04	0.03	0.11	0.08	0.19	0.04	0.07	0.11	2,390.61
Coating 08/15/2012-03/01/2013	33.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Architectural Coating	33.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Time Slice 2/18/2013-3/1/2013	35.45	14.79	12.01	0.01	0.03	1.20	1.22	0.01	1.10	1.11	1,879.25
Active Days: 10											
Asphalt 01/01/2013-03/31/2013	2.44	14.77	11.58	0.01	0.02	1.20	1.22	0.01	1.10	1.11	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	13.60	8.91	0.00	0.00	1.15	1.15	0.00	1.05	1.05	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Coating 08/15/2012-03/01/2013	33.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Architectural Coating	33.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30

8/2/2010 3:32:05 PM

Time Slice 3/4/2013-3/29/2013	2.44	14.77	11.58	0.01	0.02	1.20	1.22	0.01	1.10	1.11	1,813.95
Active Days: 20											
Asphalt 01/01/2013-03/31/2013	2.44	14.77	11.58	0.01	0.02	1.20	1.22	0.01	1.10	1.11	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	13.60	8.91	0.00	0.00	1.15	1.15	0.00	1.05	1.05	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17

Phase Assumptions

Phase: Fine Grading 3/15/2012 - 4/30/2012 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 10.12

Maximum Daily Acreage Disturbed: 2.53

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 1/1/2012 - 3/31/2012 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 10.12

Maximum Daily Acreage Disturbed: 2.53

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 5816.74

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

Page: 7

8/2/2010 3:32:06 PM

- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/1/2013 - 3/31/2013 - Default Paving Description

Acres to be Paved: 2.53

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 5/1/2012 - 2/15/2013 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 2 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 8/15/2012 - 3/1/2013 - Default Architectural Coating Description

- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

8/2/2010 3:32:06 PM

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 1/2/2012-3/14/2012 Active Days: 53	13.73	161.76	65.47	0.23	4.40	5.53	9.93	1.02	5.09	6.11	27,070.73
Mass Grading 01/01/2012-03/31/2012	13.73	161.76	65.47	0.23	4.40	5.53	9.93	1.02	5.09	6.11	27,070.73
Mass Grading Dust	0.00	0.00	0.00	0.00	3.57	0.00	3.57	0.75	0.00	0.75	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.08	0.08	0.00	0.07	0.07	2,247.32
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Time Slice 3/15/2012-3/30/2012 Active Days: 12	16.46	<u>180.49</u>	<u>78.22</u>	<u>0.23</u>	<u>7.98</u>	<u>5.62</u>	<u>13.59</u>	<u>1.77</u>	<u>5.17</u>	<u>6.93</u>	<u>29,487.79</u>
Fine Grading 03/15/2012-04/30/2012	2.73	18.73	12.75	0.00	3.58	0.09	3.66	0.75	0.08	0.83	2,417.06
Fine Grading Dust	0.00	0.00	0.00	0.00	3.57	0.00	3.57	0.75	0.00	0.75	0.00
Fine Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.08	0.08	0.00	0.07	0.07	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Mass Grading 01/01/2012-03/31/2012	13.73	161.76	65.47	0.23	4.40	5.53	9.93	1.02	5.09	6.11	27,070.73
Mass Grading Dust	0.00	0.00	0.00	0.00	3.57	0.00	3.57	0.75	0.00	0.75	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.08	0.08	0.00	0.07	0.07	2,247.32
Mass Grading On Road Diesel	11.01	143.04	52.72	0.23	0.82	5.45	6.27	0.27	5.01	5.28	24,653.66
Mass Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75

8/2/2010 3:32:06 PM

Time Slice 4/2/2012-4/30/2012 Active Days: 21	2.73	18.73	12.75	0.00	3.58	0.09	3.66	0.75	0.08	0.83	2,417.06
Fine Grading 03/15/2012-04/30/2012	2.73	18.73	12.75	0.00	3.58	0.09	3.66	0.75	0.08	0.83	2,417.06
Fine Grading Dust	0.00	0.00	0.00	0.00	3.57	0.00	3.57	0.75	0.00	0.75	0.00
Fine Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.08	0.08	0.00	0.07	0.07	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.07	1.23	0.00	0.01	0.01	0.01	0.00	0.00	0.01	169.75
Time Slice 5/1/2012-8/14/2012 Active Days: 76	5.95	27.40	40.12	0.04	0.17	0.46	0.63	0.06	0.42	0.48	6,455.06
Building 05/01/2012-02/15/2013	5.95	27.40	40.12	0.04	0.17	0.46	0.63	0.06	0.42	0.48	6,455.06
Building Off Road Diesel	4.92	20.08	17.40	0.00	0.00	0.14	0.14	0.00	0.12	0.12	2,545.06
Building Vendor Trips	0.54	6.30	5.32	0.01	0.05	0.25	0.31	0.02	0.23	0.25	1,517.15
Building Worker Trips	0.49	1.01	17.40	0.03	0.11	0.07	0.19	0.04	0.06	0.10	2,392.85
Time Slice 8/15/2012-12/31/2012 Active Days: 99	<u>26.52</u>	27.42	40.59	0.04	0.17	0.46	0.64	0.06	0.42	0.48	6,520.43
Building 05/01/2012-02/15/2013	5.95	27.40	40.12	0.04	0.17	0.46	0.63	0.06	0.42	0.48	6,455.06
Building Off Road Diesel	4.92	20.08	17.40	0.00	0.00	0.14	0.14	0.00	0.12	0.12	2,545.06
Building Vendor Trips	0.54	6.30	5.32	0.01	0.05	0.25	0.31	0.02	0.23	0.25	1,517.15
Building Worker Trips	0.49	1.01	17.40	0.03	0.11	0.07	0.19	0.04	0.06	0.10	2,392.85
Coating 08/15/2012-03/01/2013	20.57	0.03	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.36
Architectural Coating	20.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.48	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.36

8/2/2010 3:32:06 PM

Time Slice 1/1/2013-2/15/2013	<u>17.02</u>	<u>38.47</u>	<u>49.89</u>	<u>0.05</u>	<u>0.19</u>	<u>0.75</u>	<u>0.95</u>	<u>0.07</u>	<u>0.69</u>	<u>0.76</u>	<u>8,332.24</u>
Active Days: 34											
Asphalt 01/01/2013-03/31/2013	2.44	13.11	11.58	0.01	0.02	0.33	0.35	0.01	0.30	0.31	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	11.94	8.91	0.00	0.00	0.28	0.28	0.00	0.26	0.26	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Building 05/01/2012-02/15/2013	5.43	25.34	37.88	0.04	0.17	0.42	0.59	0.06	0.38	0.44	6,453.00
Building Off Road Diesel	4.50	18.85	16.96	0.00	0.00	0.12	0.12	0.00	0.11	0.11	2,545.06
Building Vendor Trips	0.49	5.57	4.88	0.01	0.05	0.22	0.28	0.02	0.20	0.22	1,517.33
Building Worker Trips	0.44	0.92	16.04	0.03	0.11	0.08	0.19	0.04	0.07	0.11	2,390.61
Coating 08/15/2012-03/01/2013	9.15	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Architectural Coating	9.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Time Slice 2/18/2013-3/1/2013	11.59	13.13	12.01	0.01	0.03	0.33	0.36	0.01	0.31	0.31	1,879.25
Active Days: 10											
Asphalt 01/01/2013-03/31/2013	2.44	13.11	11.58	0.01	0.02	0.33	0.35	0.01	0.30	0.31	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	11.94	8.91	0.00	0.00	0.28	0.28	0.00	0.26	0.26	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17
Coating 08/15/2012-03/01/2013	9.15	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30
Architectural Coating	9.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.03	0.44	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.30

8/2/2010 3:32:07 PM

Time Slice 3/4/2013-3/29/2013	2.44	13.11	11.58	0.01	0.02	0.33	0.35	0.01	0.30	0.31	1,813.95
Active Days: 20											
Asphalt 01/01/2013-03/31/2013	2.44	13.11	11.58	0.01	0.02	0.33	0.35	0.01	0.30	0.31	1,813.95
Paving Off-Gas	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.19	11.94	8.91	0.00	0.00	0.28	0.28	0.00	0.26	0.26	1,272.04
Paving On Road Diesel	0.08	1.04	0.38	0.00	0.01	0.04	0.05	0.00	0.04	0.04	202.73
Paving Worker Trips	0.06	0.13	2.28	0.00	0.02	0.01	0.03	0.01	0.01	0.02	339.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 3/15/2012 - 4/30/2012 - Default Fine Site Grading/Excavation Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

Page: 12

8/2/2010 3:32:07 PM

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Mass Grading 1/1/2012 - 3/31/2012 - Default Mass Site Grading/Excavation Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

Page: 13

8/2/2010 3:32:08 PM

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Paving 1/1/2013 - 3/31/2013 - Default Paving Description

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Building Construction 5/1/2012 - 2/15/2013 - Default Building Construction Description

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

8/2/2010 3:32:08 PM

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 15% PM10: 50% PM25: 50%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

The following mitigation measures apply to Phase: Architectural Coating 8/15/2012 - 3/1/2013 - Default Architectural Coating Description

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.14	1.95	1.64	0.00	0.00	0.00	2,343.18
Hearth - No Summer Emissions							
Landscape	0.37	0.06	4.64	0.00	0.02	0.02	8.43
Consumer Products	0.00						
Architectural Coatings	1.29						
TOTALS (lbs/day, unmitigated)	1.80	2.01	6.28	0.00	0.02	0.02	2,351.61

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
High turnover (sit-down) rest.	11.02	20.44	146.01	0.19	31.18	6.21	18,944.78
Hotel	3.90	6.33	45.13	0.06	9.69	1.93	5,880.66
Casino	80.56	135.36	968.82	1.27	204.35	40.73	124,318.93
TOTALS (lbs/day, unmitigated)	95.48	162.13	1,159.96	1.52	245.22	48.87	149,144.37

Operational Settings:

- Includes correction for passby trips
- Does not include double counting adjustment for internal trips
- Analysis Year: 2013 Temperature (F): 80 Season: Summer
- Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
High turnover (sit-down) rest.		127.15	1000 sq ft	5.86	745.10	17,927.08
Hotel		2.06	rooms	100.00	206.00	5,568.18
Casino		39.43	1000 sq ft	164.40	6,482.29	117,459.13
					7,433.39	140,954.39

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.4	0.4	99.4	0.2
Light Truck < 3750 lbs	10.0	2.0	94.0	4.0
Light Truck 3751-5750 lbs	20.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	11.4	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.0	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	42.9	57.1
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	1.8	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.2	54.8	45.2	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.4	0.0	92.9	7.1

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	30.0	30.0	30.0
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
% of Trips - Commercial (by land use)						
High turnover (sit-down) rest.				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Casino				2.0	1.0	97.0

Operational Changes to Defaults

- The urban/rural selection has been changed from Urban to Rural
- Commercial-based commute rural trip length changed from 15.4 miles to 30 miles
- Commercial-based non-work rural trip length changed from 9.6 miles to 30 miles
- Commercial-based customer rural trip length changed from 12.6 miles to 30 miles